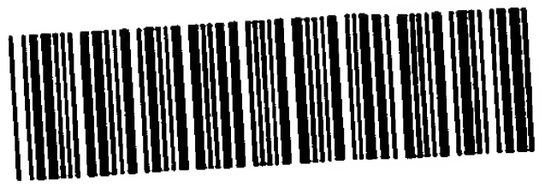

#10
CD
5/13/02

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/636,259A

DATE: 05/01/2002
TIME: 12:21:17

Input Set : A:\Sequences for 13092.txt
Output Set: N:\CRF3\05012002\I636259A.raw

3 <110> APPLICANT: Small, Kersten M
4 Liggett, Stephen
6 <120> TITLE OF INVENTION: Alpha-2A-adrenergic receptor polymorphisms
8 <130> FILE REFERENCE: 13092
10 <140> CURRENT APPLICATION NUMBER: 09/636,259A
11 <141> CURRENT FILING DATE: 2000-08-10
13 <160> NUMBER OF SEQ ID NOS: 16
15 <170> SOFTWARE: PatentIn version 3.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 1170
19 <212> TYPE: DNA
20 <213> ORGANISM: Homo sapiens
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25 ctggtggcca cgctcgtcat ccctttctcg ctggccaacg aggtcatggg ctactggtac 120
27 ttcggcaagg cttggtgcga gatctacctg gcgctcgacg tgctcttctg cacgtcgtcc 180
29 atcgtgcacc tgtgcgccat cagcctggac cgctactggt ccatcacaca ggccatcgag 240
31 tacaacctga agcgcacgcc gcgccgcatc aaggccatca tcatcaccgt gtgggtcatc 300
33 tcggccgtca tctccttccc gccgctcatc tccatcgaga agaagggcgg cggcggcggc 360
35 ccgcagccgg ccgagccgcg ctgcgagatc aacgaccaga agtggtacgt catctcgtcg 420
37 tgcatcggct ccttcttcgc tccctgcctc atcatgatcc tggtctacgt gcgcatctac 480
39 cagatcgcca agcgtcgcac ccgcgtgcca cccagccgcc ggggtccgga cgccgtcgcc 540
41 gcgccgccgg ggggcaccga gcgcaggccc aacggtctgg gccccgagcg cagcgcgggc 600
43 ccgggggcg cagaggccga accgctgccc acccagctca acggcgcccc tggcgagccc 660
45 gcgccggccg ggccgcgcga caccgacgcg ctggacctgg aggagagctc gtcttccgac 720
47 cacgccgagc ggcctccagg gccccgcaga cccgagcgcg gtccccgggg caaaggcaag 780
49 gcccgagcga gccaggtgaa gccgggcgac agcctgccgc ggcgcgggcc ggggggcgacg 840
51 gggatcggga cgccggctgc agggccgggg gaggagcgcg tcggggctgc caaggcgtcg 900
53 cgctggcgcg ggcggcagaa ccgcgagaag cgcttcacgt tcgtgctggc cgtggtcatc 960
55 ggagtgttcg tggtgtgctg gttccccttc ttcttcacct acacgctcac ggccgtcggg 1020
57 tgctccgtgc cacgcacgct cttcaaattc ttcttctggt tcggctactg caacagctcg 1080
59 ttgaacccgg tcatctacac catcttcaac cacgatttcc gccgcgcctt caagaagatc 1140
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64 <210> SEQ ID NO: 2
65 <211> LENGTH: 1350
66 <212> TYPE: DNA
67 <213> ORGANISM: Homo sapiens
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72 ggcggcgccc gggccacccc ttactccctg caggtgacgc tgacgctggt gtgcctggcc 120
74 ggcctgctca tgctgctcac cgtgttcggc aacgtgctcg tcatcatcgc cgtgttcacg 180
76 agccgcgcgc tcaaggcgcc ccaaaacctc ttcctggtgt ctctggcctc ggccgacatc 240
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RAW SEQUENCE LISTING DATE: 05/01/2002
PATENT APPLICATION: US/09/636,259A TIME: 12:21:17

Input Set : A:\Sequences for 13092.txt
Output Set: N:\CRF3\05012002\I636259A.raw

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 82 atcgtgcacc tgtgcgccat cagcctggac cgctactggt ccatcacaca ggccatcgag    420
 84 tacaacctga agcgcacgcc gcgccgcatc aaggccatca tcatcaccgt gtgggtcatc    480
 86 tcggccgtca tctccttccc gccgctcatc tccatcgaga agaagggcgg cggcggcggc    540
 88 ccgcagccgg ccgagccgcg ctgcgagatc aacgaccaga agtggtacgt catctcgtcg    600
 90 tgcatcggct ccttcttcgc tccctgcctc atcatgatcc tggtctacgt gcgcatctac    660
 92 cagatcgcca agcgtcgcac ccgcgtgcca cccagccgcc ggggtccgga cgccgtcgcc    720
 94 gcgccgccgg ggggcaccga gcgcaggccc aagggtctgg gccccgagcg cagcgcgggc    780
 96 ccgggggggcg cagaggccga accgctgccc acccagctca acggcgcccc tggcgagccc    840
 98 gcgccggccg ggccgcgcga caccgacgcg ctggacctgg aggagagctc gtcttccgac    900
100 cacgccgagc ggcctccagg gccccgcaga cccgagcgcg gtccccgggg caaaggcaag    960
102 gcccgagcga gccaggtgaa gccgggcgac agcctgccgc ggcgcgggcc gggggcgacg   1020
104 gggatcggga cgccggctgc agggccgggg gaggagcgcg tcggggctgc caaggcgtcg   1080
106 cgctggcgcg ggcggcagaa ccgcgagaag cgcttcacgt tcgtgctggc cgtggtcatc   1140
108 ggagtgttcg tggtgtgctg gttccccttc ttcttcacct acacgctcac ggccgtcggg   1200
110 tgctccgtgc cacgcacgct cttcaaattc ttcttctggt tcggctactg caacagctcg   1260
112 ttgaacccgg tcatctacac catcttcaac cacgatttcc gccgcgcctt caagaagatc   1320
114 ctctgtcggg gggacaggaa gcggatcgtg                                    1350
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118 <211> LENGTH: 450
119 <212> TYPE: PRT
120 <213> ORGANISM: Homo sapiens
122 <400> SEQUENCE: 3
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128 Glu Ala Pro Gly Gly Gly Ala Arg Ala Thr Pro Tyr Ser Leu Gln Val
129             20                  25                  30
132 Thr Leu Thr Leu Val Cys Leu Ala Gly Leu Leu Met Leu Leu Thr Val
133         35                  40                  45
136 Phe Gly Asn Val Leu Val Ile Ile Ala Val Phe Thr Ser Arg Ala Leu
137     50                  55                  60
140 Lys Ala Pro Gln Asn Leu Phe Leu Val Ser Leu Ala Ser Ala Asp Ile
141 65                  70                  75                  80
144 Leu Val Ala Thr Leu Val Ile Pro Phe Ser Leu Ala Asn Glu Val Met
145                 85                  90                  95
148 Gly Tyr Trp Tyr Phe Gly Lys Ala Trp Cys Glu Ile Tyr Leu Ala Leu
149             100                 105                 110
152 Asp Val Leu Phe Cys Thr Ser Ser Ile Val His Leu Cys Ala Ile Ser
153         115                 120                 125
156 Leu Asp Arg Tyr Trp Ser Ile Thr Gln Ala Ile Glu Tyr Asn Leu Lys
157     130                 135                 140
160 Arg Thr Pro Arg Arg Ile Lys Ala Ile Ile Ile Thr Val Trp Val Ile
161 145                 150                 155                 160
164 Ser Ala Val Ile Ser Phe Pro Pro Leu Ile Ser Ile Glu Lys Lys Gly
165                 165                 170                 175
168 Gly Gly Gly Gly Pro Gln Pro Ala Glu Pro Arg Cys Glu Ile Asn Asp
169             180                 185                 190
172 Gln Lys Trp Tyr Val Ile Ser Ser Cys Ile Gly Ser Phe Phe Ala Pro
173         195                 200                 205
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RAW SEQUENCE LISTING DATE: 05/01/2002
PATENT APPLICATION: US/09/636,259A TIME: 12:21:17

Input Set : A:\Sequences for 13092.txt
Output Set: N:\CRF3\05012002\I636259A.raw

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176 Cys Leu Ile Met Ile Leu Val Tyr Val Arg Ile Tyr Gln Ile Ala Lys
177     210                 215                 220
180 Arg Arg Thr Arg Val Pro Pro Ser Arg Arg Gly Pro Asp Ala Val Ala
181 225                 230                 235                 240
184 Ala Pro Pro Gly Gly Thr Glu Arg Arg Pro Asn Gly Leu Gly Pro Glu
185                 245                 250                 255
188 Arg Ser Ala Gly Pro Gly Gly Ala Glu Ala Glu Pro Leu Pro Thr Gln
189             260                 265                 270
192 Leu Asn Gly Ala Pro Gly Glu Pro Ala Pro Ala Gly Pro Arg Asp Thr
193         275                 280                 285
196 Asp Ala Leu Asp Leu Glu Glu Ser Ser Ser Ser Asp His Ala Glu Arg
197     290                 295                 300
200 Pro Pro Gly Pro Arg Arg Pro Glu Arg Gly Pro Arg Gly Lys Gly Lys
201 305                 310                 315                 320
204 Ala Arg Ala Ser Gln Val Lys Pro Gly Asp Ser Leu Pro Arg Arg Gly
205                 325                 330                 335
208 Pro Gly Ala Thr Gly Ile Gly Thr Pro Ala Ala Gly Pro Gly Glu Glu
209             340                 345                 350
212 Arg Val Gly Ala Ala Lys Ala Ser Arg Trp Arg Gly Arg Gln Asn Arg
213         355                 360                 365
216 Glu Lys Arg Phe Thr Phe Val Leu Ala Val Val Ile Gly Val Phe Val
217     370                 375                 380
220 Val Cys Trp Phe Pro Phe Phe Phe Thr Tyr Thr Leu Thr Ala Val Gly
221 385                 390                 395                 400
224 Cys Ser Val Pro Arg Thr Leu Phe Lys Phe Phe Phe Trp Phe Gly Tyr
225                 405                 410                 415
228 Cys Asn Ser Ser Leu Asn Pro Val Ile Tyr Thr Ile Phe Asn His Asp
229             420                 425                 430
232 Phe Arg Arg Ala Phe Lys Lys Ile Leu Cys Arg Gly Asp Arg Lys Arg
233         435                 440                 445
236 Ile Val
237     450
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241 <211> LENGTH: 450
242 <212> TYPE: PRT
243 <213> ORGANISM: Homo sapiens
245 <400> SEQUENCE: 4
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248 1                 5                   10                  15
251 Glu Ala Pro Gly Gly Gly Ala Arg Ala Thr Pro Tyr Ser Leu Gln Val
252             20                  25                  30
255 Thr Leu Thr Leu Val Cys Leu Ala Gly Leu Leu Met Leu Leu Thr Val
256         35                  40                  45
259 Phe Gly Asn Val Leu Val Ile Ile Ala Val Phe Thr Ser Arg Ala Leu
260     50                  55                  60
263 Lys Ala Pro Gln Asn Leu Phe Leu Val Ser Leu Ala Ser Ala Asp Ile
264 65                  70                  75                  80
267 Leu Val Ala Thr Leu Val Ile Pro Phe Ser Leu Ala Asn Glu Val Met
268                 85                  90                  95
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RAW SEQUENCE LISTING DATE: 05/01/2002
PATENT APPLICATION: US/09/636,259A TIME: 12:21:17

Input Set : A:\Sequences for 13092.txt
Output Set: N:\CRF3\05012002\I636259A.raw

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271 Gly Tyr Trp Tyr Phe Gly Lys Ala Trp Cys Glu Ile Tyr Leu Ala Leu
272             100                 105                 110
275 Asp Val Leu Phe Cys Thr Ser Ser Ile Val His Leu Cys Ala Ile Ser
276         115                 120                 125
279 Leu Asp Arg Tyr Trp Ser Ile Thr Gln Ala Ile Glu Tyr Asn Leu Lys
280     130                 135                 140
283 Arg Thr Pro Arg Arg Ile Lys Ala Ile Ile Ile Thr Val Trp Val Ile
284 145                 150                 155                 160
287 Ser Ala Val Ile Ser Phe Pro Pro Leu Ile Ser Ile Glu Lys Lys Gly
288                 165                 170                 175
291 Gly Gly Gly Gly Pro Gln Pro Ala Glu Pro Arg Cys Glu Ile Asn Asp
292             180                 185                 190
295 Gln Lys Trp Tyr Val Ile Ser Ser Cys Ile Gly Ser Phe Phe Ala Pro
296         195                 200                 205
299 Cys Leu Ile Met Ile Leu Val Tyr Val Arg Ile Tyr Gln Ile Ala Lys
300     210                 215                 220
303 Arg Arg Thr Arg Val Pro Pro Ser Arg Arg Gly Pro Asp Ala Val Ala
304 225                 230                 235                 240
307 Ala Pro Pro Gly Gly Thr Glu Arg Arg Pro Lys Gly Leu Gly Pro Glu
308                 245                 250                 255
311 Arg Ser Ala Gly Pro Gly Gly Ala Glu Ala Glu Pro Leu Pro Thr Gln
312             260                 265                 270
315 Leu Asn Gly Ala Pro Gly Glu Pro Ala Pro Ala Gly Pro Arg Asp Thr
316         275                 280                 285
319 Asp Ala Leu Asp Leu Glu Glu Ser Ser Ser Ser Asp His Ala Glu Arg
320     290                 295                 300
323 Pro Pro Gly Pro Arg Arg Pro Glu Arg Gly Pro Arg Gly Lys Gly Lys
324 305                 310                 315                 320
327 Ala Arg Ala Ser Gln Val Lys Pro Gly Asp Ser Leu Pro Arg Arg Gly
328                 325                 330                 335
331 Pro Gly Ala Thr Gly Ile Gly Thr Pro Ala Ala Gly Pro Gly Glu Glu
332             340                 345                 350
335 Arg Val Gly Ala Ala Lys Ala Ser Arg Trp Arg Gly Arg Gln Asn Arg
336         355                 360                 365
339 Glu Lys Arg Phe Thr Phe Val Leu Ala Val Val Ile Gly Val Phe Val
340     370                 375                 380
343 Val Cys Trp Phe Pro Phe Phe Phe Thr Tyr Thr Leu Thr Ala Val Gly
344 385                 390                 395                 400
347 Cys Ser Val Pro Arg Thr Leu Phe Lys Phe Phe Phe Trp Phe Gly Tyr
348                 405                 410                 415
351 Cys Asn Ser Ser Leu Asn Pro Val Ile Tyr Thr Ile Phe Asn His Asp
352             420                 425                 430
355 Phe Arg Arg Ala Phe Lys Lys Ile Leu Cys Arg Gly Asp Arg Lys Arg
356         435                 440                 445
359 Ile Val
360     450
363 <210> SEQ ID NO: 5
364 <211> LENGTH: 22
365 <212> TYPE: DNA
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RAW SEQUENCE LISTING DATE: 05/01/2002
PATENT APPLICATION: US/09/636,259A TIME: 12:21:17

Input Set : A:\Sequences for 13092.txt
Output Set: N:\CRF3\05012002\I636259A.raw

366 <213> ORGANISM: Homo sapiens
368 <400> SEQUENCE: 5
369 tttacccatc ggctctccct ac 22
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373 <211> LENGTH: 23
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375 <213> ORGANISM: Homo sapiens
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382 <211> LENGTH: 20
383 <212> TYPE: DNA
384 <213> ORGANISM: Homo sapiens
386 <400> SEQUENCE: 7
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390 <210> SEQ ID NO: 8
391 <211> LENGTH: 23
392 <212> TYPE: DNA
393 <213> ORGANISM: Homo sapiens
395 <400> SEQUENCE: 8
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400 <211> LENGTH: 24
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402 <213> ORGANISM: Homo sapiens
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405 gccatcatca tcaccgtgtg ggtc 24
408 <210> SEQ ID NO: 10
409 <211> LENGTH: 23
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411 <213> ORGANISM: Homo sapiens
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418 <211> LENGTH: 22
419 <212> TYPE: DNA
420 <213> ORGANISM: Homo sapiens
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426 <210> SEQ ID NO: 12
427 <211> LENGTH: 23
428 <212> TYPE: DNA
429 <213> ORGANISM: Homo sapiens
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435 <210> SEQ ID NO: 13
436 <211> LENGTH: 23
437 <212> TYPE: DNA
438 <213> ORGANISM: Homo sapiens

VERIFICATION SUMMARY DATE: 05/01/2002
PATENT APPLICATION: **US/09/636,259A** TIME: 12:21:18

Input Set : **A:\Sequences for 13092.txt**
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